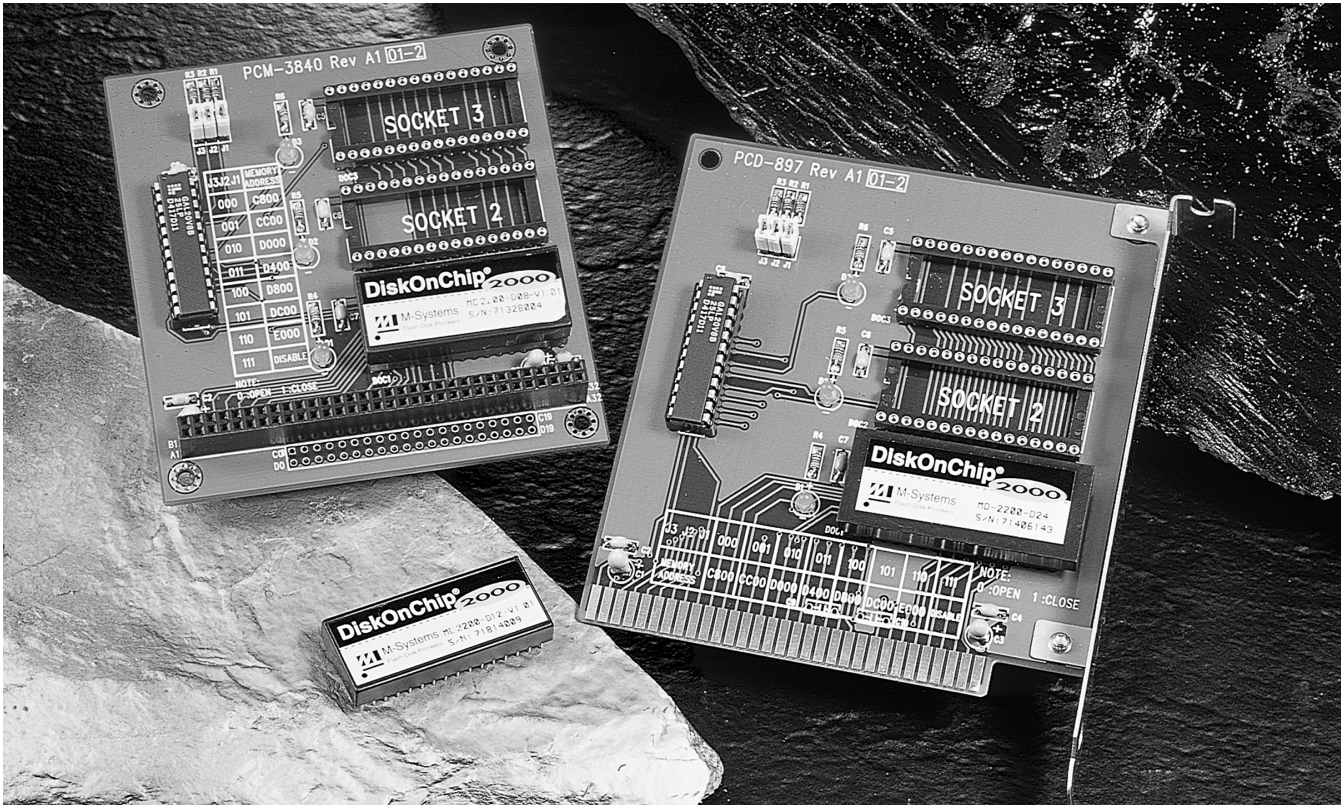


PCD-897/PCM-3840

DiskOnChip® 2000 Flash Disk Card/Module



Introduction

The PCD-897 DiskOnChip® 2000 Flash PC card is a solid state disk (SSD) in a standard 32-pin DIP package. It is a fast and economical Flash disk for embedded systems, Internet devices and portable applications with limited space and modest disk capacity requirements. It features an ISA connector and can be installed into ISA backplanes, CPU cards and motherboards.

The PCM-3840 is a PC/104 form-factor solid state disk module. It includes all of the same features as the PCD-897 but is especially suited for embedded computers in industrial environments. PC/104 modules connect to computer systems through a standard 104-pin connector and can be either stacked upon other PC/104 modules or CPU cards or mounted on special carrier boards.

The PCD-897 and PCM-3840 use M-Systems' DiskOnChip® 2000 single-chip, solid state Flash disk. It incorporates a new Flash component technology called NAND. These high density, low cost components enable faster read/write speeds, higher capacities and better prices than previous generations of Flash components.

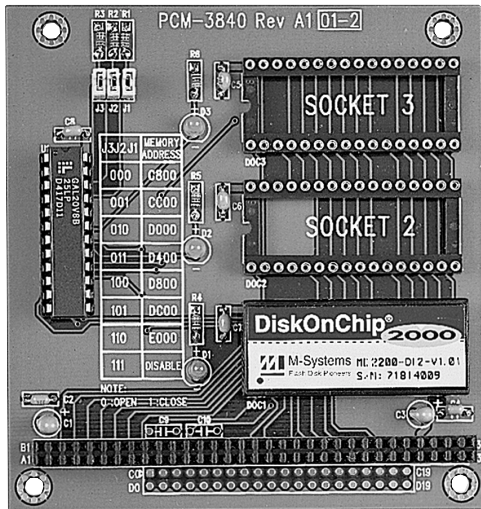
The DiskOnChip® 2000 provides a Flash disk (BIOS expansion only) which does not require any bus, slot or connector. Simply insert the DiskOnChip® 2000 into a 32-pin socket on the PCD-897/PCM-3840 or a CPU board and you have a bootable Flash disk. Its low power consumption and small size makes it the optimal solution for single board computers.

DiskOnChip® 2000 is bundled with M-Systems' industry standard TrueFFS® (True Flash File System) software for full read/write disk emulation. TrueFFS® provides hard disk compatibility at both the sector and file level. It works in a variety of operating system environments including DOS, Windows 95, pSOS+ and QNX. In addition, TrueFFS® incorporates features that ensure data integrity and reliability.

M-Systems currently manufactures DiskOnChip® 2000 products at capacities from 2 MB to 144 MB. Users of our DiskOnChip® 2000 modules will be able to upgrade to the higher capacity chips as M-Systems has committed to retaining the same pin-out. This assures that the future higher capacity chips can be installed into our solid state devices.

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PCM-3840

Features:

- 3 sockets, 8 ~ 288 MB capacity per socket
- 32-pin DIP JEDEC standard SRAM/EPROM/Flash compatible package
- ECC/EDC for high data reliability
- Full boot operability
- Built-in TrueFFS® which provides full hard disk read/write compatibility
- Operates with FLite™ (FAT-FTL/Lite) software for disk operations in O/S-less environments
- Extensive O/S support - DOS, Windows, Windows 95, Windows NT, pSOS+, QNX, VxWorks and others
- Uses 8 KB memory window

Specifications

• Compatibility	Full disk emulation
• Host OS Support	DOS 3.3 and up, Windows CE, Windows 3.1, Windows 95, Windows NT, pSOS+, QNX and VxWorks. Additional operating systems are supported by using Flite flash system and file manager software
• Capacities	8, 16, 24, 32, 48, 80, 144, 288 MB per socket
• Current Consumption	Standby 60 µA (typical), 100 µA (max.) Read 25 mA (typical), 40 mA (max.) Write 30 mA (typical), 40 mA (max.)
• Supply Voltage	5 V (read and write)
• Operating Temperature	0 ~ 60° C
• Storage Temperature	-20° C ~ 80° C
• Humidity	10% ~ 90% relative humidity (non-condensing)
• EDC/ECC	(Enhanced Reed-Solomon ECC): - Corrects up to two 10-bit symbols including two random bit errors - Corrects single bursts up to 11 bits - Detects single bursts up to 31 bits and double bursts up to 11 bits - Detects up to 4 random bit errors
• Memory Window	The DiskOnChip® 2000 should be mapped in the expansion BIOS area (usually between C8000H to E0000H) when connected to a PC
• Dimensions	PCD-897: 106 mm x 99 mm (4.2" x 3.9") PCM-3840: 96 mm x 90 mm (3.7" x 3.5")

Packing List

PCM-3840-BARE

- User's manual 2006840000

PCD-897-BARE

- User's manual 2006897000

Ordering Information

- PCM-3840-BARE: DiskOnChip® 2000 Flash Disk Module (Bare)
- PCD-897-BARE: DiskOnChip® 2000 Flash Disk Card (Bare)